REMARKS

Initially, Applicant notes that remarks and amendments made by this paper are consistent with the proposals presented to the Examiner during the telephone call placed on April 2, 2007. As mentioned in the call, the Examiner is invited to call the Applicant's attorneys should any additional questions arise in response to this response or the amended claims.

By this paper, claims 1, 9, 19, 27, 37 have been amended and new claim 43 has been added, such that claims 1-43 remain pending and of which claims 1, 9, 19, 27, 37 are the independent claims at issue.

The Non-final Office Action mailed March 08, 2007, considered and rejected claims 1-42. Claims 9-18 were rejected as being unpatentable under 35 U.S.C. § 101 for purportedly being directed to non-statutory subject matter. Claims 1-8, 19-26, and 27-36 were rejected under 35 U.S.C. 101 because the claimed invention was determined to be directed to non-statutory matter. Claims 1-42 were rejected under 35 U.S.C. 102(e) as being unpatentable by Craycroft et al. (US 6731310) hereinafter Craycroft. [1]

Initially, with regard to the §101 (non-statutory subject matter) rejections, Applicant respectfully disagrees with the rejection of claims 9-18 for purportedly being directed to non-statutory subject matter. In particular, Applicant respectfully submits that the computer program products recited in claims 9-18 were and are directed to statutory subject matter, inasmuch as they comprise computer-readable media. Even though the computer-readable media could have been interpreted as corresponding to carrier-signals, Applicant respectfully submits that carrier signals are physical (enabling them to be transmitted and read) and are, therefore, statutorily eligible for patent protection. Notwithstanding the foregoing, Applicant has nonetheless amended claim 9 to expedite the prosecution of this case by narrowing the scope of the recited claims to computer-readable **storage** media storing computer-executable instructions which when executed perform the methods of the invention. In view of these amendments, Applicant respectfully submits that the §101 rejections are now moot.

---

[1] Although the prior art status of the cited art is not being challenged at this time, Applicant reserves the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

With regard to the rejection of claims 1-8, 19-26 and 27-36 based on 35 U.S.C. § 101 and the recently applied practical application test, the claims have been amended to illuminate the useful, concrete, and tangible result of the claimed invention. The additional language of the amended claim identifies that a dynamically defined behavior of an interface is the result of the claimed invention and which is useful and concrete and can be applied in various ways. Since claims 2-8, 20-26, and 28-36 depend on the amended independent claims, Applicant respectfully submits that the rejections to dependent claims are now moot and do not need to be addressed at this time.

With regard to the rejection of all of the claims under 102(e), independent claims 1, 9, 19, 37 have been amended to clarify and highlight some of the distinctions between the claims and the prior art of record. Support for the amendments is found throughout the Specification, including, but not limited to, the disclosure found on paragraphs [0004] – [0006] of the Specification as originally filed. Many of the claim amendments are also supported by the claims previously filed, as they now merely recite in explicit terms the limitations that were already inherently present in the claims.

As recited in the claims, the present invention is generally directed to systems and methods for centrally managing user interface state information for the visual user interface development tool such that behavior for one or more user interface components or the visual user interface tool itself may be defined dynamically at development time. Claim 1 for example recites a method where a message is generated within the visual user interface development tool. The message is sent to a centralized behavior stack to be checked against one or more behaviors to use in processing the message. The behavior stack is then checked for currently available behaviors for processing messages to determine if a behavior is available. If a behavior is found to be available, the message is passed to the available behavior for processing resulting in a dynamically defined behavior of an interface.

Claim 9 is directed to a corresponding computer program product for implementing a method similar to the method of claim 1. Claim 19 is directed to another similar method to the method recited in claim 1, but uses functional 'step for' language instead of acts. Claim 27 is directed to a computer program product for implementing a method similar to the method of claim 19. Finally, claim 37 is directed to another computer program product wherein several

components related to the implementation of the invention (e.g., behavior stack, extensible collection, and message router) are defined in terms of computer-executable instructions.

The only cited art of record used to reject the claims, namely, Craycroft, discloses systems and methods for providing a user with increased flexibility and control over the appearance and behavior of objects on a user interface. Sets of objects can be grouped into themes which can be switched dynamically by switching pointers to drawing procedures or by switching the data supplied to the procedures. The particularly relevant sections of the cited art relate to the manner in which themes define drawing procedures. Craycroft discloses that a theme is responsible for disposing of any allocations that it may have made when *it received its initialization message*. (see Col. 23, ll. 42-48) An appearance management layer returns a pattern structure to the client (application or definition process) to the client which then *sends its own command to the graphics subsystem* to draw the appropriate pattern and/or color on the desktop interface. (see Col. 11, ll. 15-20). A custom drawing procedure can inherit from the system provided appearance using delegation or forwarding. Delegation involves passing control on to another object when inherited behavior is desired. To *determine the particular object to which the drawing procedure* should delegate in a dynamically changing interface, either the client can call in to the system or the system can track current implementations. (see Col. 9, ll. 35-45) One exemplary embodiment portrays the client as using drawing primitives to *send commands through the appearance management layer* to the graphic subsystem. (see Col. 11, ll. 1-10)

The embodiment disclosed in Craycroft differs from the limitation recited in the amended claims for at least the reasons cited in this response, as well as for the reasons discussed with the examiner. One distinction that can be made between the pending claims and the cited art is that the present invention is directed to behaviors of user interface components at development time whereas the cited art is directed at runtime appearance management layers that give users the ability to customize the appearance and behavior desktop objects during runtime.

Furthermore, when Craycraft mentions behaviors, it is always in conjunction with the term appearance or theme. For instance, one behavior is described as "These windows and window parts exhibit a behavior when acted on by a user which is distinct from the underlying function of these objects, i.e., when a user clicks on a close button using a mouse, the button becomes shaded..." see claim. 4 ll. 49-51. In this regard, it is clear that the behaviors referenced

in the cited art re related to the thematic display of the object and not to the underlying functionality of the interface components, such as, but not limited to dragging an object, resizing an object, selecting an object, etc. Specification, paragraph [0005]. See also new claim 43.

In view of the foregoing, the current claims are clearly distinguished from the cited art for at least dynamically defining the behaviors at development time, as opposed to only applying thematic behaviors during runtime. Furthermore, the claimed behaviors are not merely rendering thematic aesthetics of the user interface component independent of the interface component functionality, but are instead intrinsically related to and controlling functionality and actions that are permitted for the user interface component. In other words, contrary to the pending claims, the behaviors for the objects that are disclosed in the prior art are independent of the underlying functionality of the objects and are, therefore, clearly distinguished from the pending claims that clarify that the behaviors determine what actions are permitted for the object are therefore directly related to the functionality of the interface components.

Additionally, the messages/commands described in Craycroft are not consistent throughout the embodiment and do not correspond to the message recited in the claims of the present invention. The initialization message of Craycroft is sent to every drawing procedure for every utility interface element and as a result, the display will be redrawn. The initialization message has an action defined for it that is not dynamic in nature, instead it results in the display being redrawn every time. This can be contrasted with the message of claim 1, where a visual user interface development tool generates a message, a message which at this point does not have a definite behavior associated with it.

Furthermore, Craycroft does not disclose the limitation of sending the message to a centralized behavior stack to check for one or more behaviors to use in processing the message. The message recited in this claim limitation is the same one the visual user interface development tool generated. In Craycroft, the cited passage of "the client which then sends its own command to the graphics subsystem" specifically states that the client is sending the command. Since the client and the appearance management layer are two separate objects in the disclosure, it is not possible for this command/message to be generated by the appearance management layer and therefore does not correspond to the message generated by the visual user interface development tool. Furthermore, the command is not being sent to determine if a

behavior is available, but rather is being sent to the graphic subsystem to draw the appropriate pattern on the desktop interface.

The limitation of checking the centralized behavior stack containing currently available behaviors for processing messages to determine if a behavior is available is not fully disclosed by Craycroft, either. The references cited in Craycroft relate to data driven drawing procedures using a common mechanism that implement state tables. The states tables contain bitmaps for each state of the control represented as well as information about transitions from one state to another. The process is looking up a bitmap or a transitional effect in a table to apply to a change in state. The table referenced is not the same as a behavioral stack. The table does not contain any behaviors as used in the claims, but rather contains visual elements that are associated with states of a control. The contents of the table in the cited art do not change the action permitted for the underlying object and cannot be considered to be behaviors.

Finally, the claim limitation of if a behavior is available on the centralized behavior stack, then passing the message to the available behavior for processing is not fully supported in the cited art either. Again, in the passage cited by the Examiner, the client is sending the commands, not the appearance management layer. Therefore the message cannot be the same one that was generated in the earlier step of the claim. The appearance management layer is acting only as a database of available patterns/colors. The client is requesting pattern structure from the appearance management layer and then the client is commanding the graphic subsystem to draw the appropriate pattern to the desktop. The messages as described in the cited art are commands send by a client in order to render objects to the desktop, they are not messages generated by a visual user interface development tool that have a dynamically defined behavior of the interface. In the cited art, the appearance of the desktop may be dynamically defined, but the behavior, as defined in the patent, is not.

Although only the distinctions in claim 1 were addressed in detail, it will be appreciated that the foregoing arguments are correspondingly applicable to the remaining independent and dependent claims that also explicitly or inherently include the limitations discussed with regard to claim 1.

In view of the foregoing, Applicant respectfully submits that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicant acquiescing to any of the

purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice. Instead, Applicant reserves the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicant specifically requests that the Examiner provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 2nd day of May, 2007.

Respectfully submitted,

RICK D. NYDEGGER
Registration No. 28,651
JENS C. JENKINS
Registration No. 44,803
JOHN C. BACOCH
Registration No. 59890
Attorneys for Applicant
Customer No. 47973

RDN:JCJ:JCB:tb
CRB0000005339V001